



NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY
Grosvenor Lodge, 1017 Western Road, London, ON. N6G 1G5
(519) 645-2844



January (sort of), 1994

94-1

REDNECKS AND GREY CLAY: ARCHAEOLOGICAL INVESTIGATIONS AT THE MOUTH OF THE GRAND RIVER

Bud Parker
Archaeological Research Associates

Clearly, Bud will be providing us with a colourful talk on some very interesting Middle Woodland site investigations he conducted this past field season, down across from Dunnville, near the mouth of the Grand River. Meeting time, as always, will be at 8 PM on Thursday, March 10th, at Grosvenor Lodge. Come on out for some "down home" yarns.

Next Month: On Thursday, April 14th the Chapter Speaker Night will feature Chapter member Bill Donaldson. Bill is just finishing up a research project on Terminal Archaic mortuary patterns, with a particular emphasis on the Hind Site, located near Wardsville and excavated a number of years ago by Bill and Stan Wortner. Start time at Grosvenor is the usual 8 PM.

DON'T FORGET, YOUR 1994 MEMBERSHIP FEES ARE DUE - NOW!

Chapter Executive

ANNUAL RATES

Individual.....	\$15.00
Family.....	\$18.00
Institutional.....	\$21.00
Subscriber.....	\$17.00

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EXECUTIVE REPORT

Nothing much to report of late. Outside of some rather painful (read dull!!) meetings associated with Grosvenor Lodge that Pat must attend on the Chapter's behalf, the new Executive is working smoothly, processing all those orders for the second printing of the Prehistory volume, while waiting for the next volume in the series to be published... It's a tough job!!

→→→→→ NOTICE ←←←←←

Here's a report from London City Hall for your interest:

The City of London has embarked on the creation of an archaeological master plan for the recently enlarged City of London. The master plan will inventory archaeological sites, map areas of archaeological potential; and recommend policies for the management of archaeology in the city. An Archaeologist/Planner, Malcolm Horne, has been employed since December, 1992, and has been carrying out preliminary work on this master plan. Malcolm would be very interested in receiving any information about archaeology or archaeological sites in the London area, or any input in regard to the archaeological master plan (see address and phone number below).

Recently, City Council approved a budget for the master plan, including funds for the position of an assistant Archaeologist for a temporary term of 14 months. This person will help develop the Archaeological Master Plan through research, database creation, mapping and report production. The selected candidate will have a B.A. in archaeology or anthropology, and will have previous experience in archaeological field work and archival research. Experience with computers, particularly in the areas of database management and computer assisted mapping, is desirable.

Qualified applicants should submit a resume, including a covering letter and 3 references, by March 16th to:

Malcolm Horne, Archaeologist/Planner, Planning Division, City of London, 300 Dufferin Ave., Rm. 603, P.O. Box 5035, London Ontario, N6A 4L9. Phone: 519-661-5469; Fax: 519-661-5397.

SOCIAL REPORT

We're still looking for summer field project ideas. If you've got one, contact a member of the Chapter Executive.

During February's Speaker Night, Chapter President Pat Weatherhead, on behalf of the Executive and membership, awarded Heritage Week Speaker and long time Chapter member Neal Ferris with an Honourary Lifetime membership to the Chapter, in recognition of all his efforts over the years in supporting the Chapter. Reports are that Neal was thrilled to receive the honour, but is wondering if this means he is now obliged to be the editor of **KEWA** for the rest of his life?!

EDITOR'S REPORT

This month an intriguing offer from Phil Woodley of the MTO office in Toronto on an unusual Early Iroquoian site found on Highway 54 along the Grand River, between Middleport and Caledonia. You guys certainly keep finding 'em in usual places, situations and conditions!!

**LONDON CHAPTER, OAS
1993 Treasurer's Report**

		1992	1991
Balance on Hand, January 1		17812.63	15972.21
REVENUES			
	Membership Subscriptions (& T-Shirt Sales)	1803	1973.87
	Bank Interest	215.62	525.73
	U.S. Sales (members & books)	775.84	1185.82
	Grants	0	0
	Publication Sales	2031.55	9375.95
	Other (OAS Symposium '93)	5295.82	na
TOTAL REVENUE		10121.83	13061.37
EXPENSES			
	Publications/Mail (KEWA & Occ. Pub.)	1948.13	3051.49
	Administration (including rent, refunds, insurance, bank charges, social events, etc.)	1896.97	3734.80
	Projects (OAS Symposium)	3553.58	2201.44
TOTAL EXPENSES		7398.68	8987.73
	Excess of Revenue over Expense	2723.15	4073.64
	Balance on Hand, December 31	20535.78	17812.63

Special Note: The OAS symposium made a total profit of \$1,742.24. One half of that sum goes to the main body of the OAS (\$871.12). That payment will be reported in the 1994 year for the London Chapter. Therefore our real profit (Excess of Revenue over Expense) is \$1,852.03.

- Harri Mattila, Chapter Treasurer, January 21, 1994

Philip J. Woodley

Introduction

The Macallan site (AgHa-59) was discovered in the spring of 1992, when human remains were exposed during the reconstruction and resurfacing of Highway 54 (Woodley 1993). The excavation of Macallan concentrated on removing the human remains from the highway right-of-way (ROW), recovering settlement pattern data and artifacts from beneath the highway, and determining if the site continued north of the highway. The proposed relocation of a Union Gas pipeline required additional excavation of a narrow band of land along the north side of the highway, where more fragmented human bone was encountered in topsoil and subsoil units. Subsequently, the later excavations were oriented towards determining the extent of the human remains north of the highway.

Excavations yielded evidence of Late Archaic, Middle Woodland and Early Iroquoian (Glen Meyer) occupations. Even though some historic artifacts were recovered, this report will concentrate on the prehistoric occupations, mainly on the Early Iroquoian, which produced features, a longhouse and human burials.

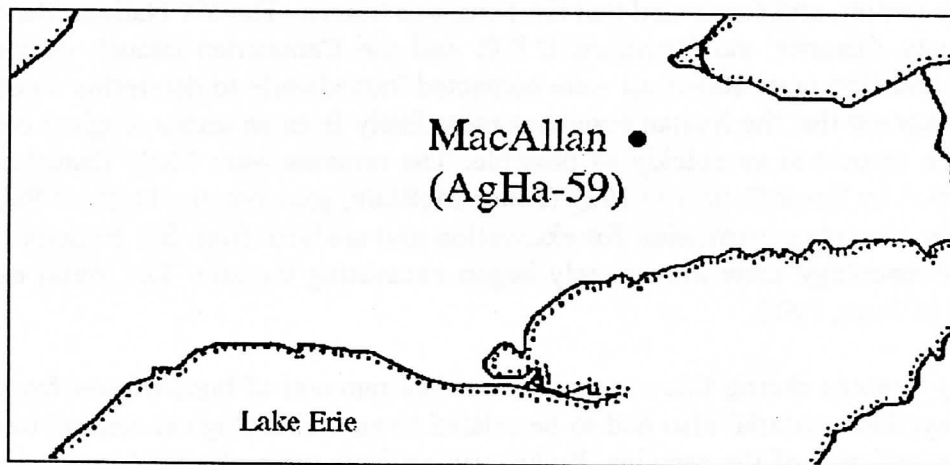


Figure 1: General Site Location of the MacAllan Site.

Site Location And Environment

The Macallan site is located on the north side of the Grand River, transected by Highway 54, between the town of Caledonia and the village of Middleport (Figure 1). Macallan is situated on the Haldimand Clay Plain, which overlies most of the Niagara Peninsula (Chapman and Putnam

1984: 156-159). South of the City of Brantford, the Grand River has cut a wide, deep valley through this clay plain and near Caledonia "... odd (physiographic) variation is provided by a scattered group of drumlins partially buried in moderately dissected clay beds" (Chapman and Putnam 1984: 157).

North of the site is a series of these low drumlins. Opposite Macallan, the south shore of the Grand River is characterized by a low, flat flood plain and the site overlooks the river from a fairly wide, flat terrace elevated approximately five metres above the river (Figure 2). The soil at Macallan is a sandy clay loam and the subsoil is composed of compacted stratified layers of clay and sand. These layers are most likely the result of periodic flooding of the Grand River.

History Of Investigation And Field Methodology

In May 1992, Carl Murphy monitored the stripping of highway pavement near the Dewar site (AgHa-55). No archaeological remains were present. Further west along the highway, Murphy noted that topsoil had been removed south of the highway. He examined the excavated area and noted bone fragments on the surface of the exposed subsoil. Murphy recommended work stoppage and the area was quickly cordoned off with snow fencing until a more thorough examination could be undertaken. Although most of the bone was very fragmented, he noted that some of it appeared to be human.

Ministry of Transportation archaeologists subsequently returned to the site, determined the extent of the bone scatter, and confirmed that the bone was human. The Six Nations Band Council, the Brant County Coroner, the Brantford O.P.P. and the Cemeteries Branch of the Ministry of Consumer and Corporate Relations were contacted immediately to determine a course of action. All parties agreed that the human bone was most likely from an archaeological context and that it should be recovered as quickly as possible. The remains were likely disturbed during road reconstruction by Brant County in 1927 (Bruce McBlain, pers. comm.; Dept. of Public Highways 1927). After receiving permission for excavation and analysis from Six Nations Band Council, an MTO archaeology crew immediately began excavating the site. The initial excavation was completed in June, 1992.

Of primary concern during this excavation was the removal of human bone from the highway right-of-way. This material also had to be related to an archaeological context to determine the original provenience of the remains. Prehistoric artifacts were observed in the road cut on the north side of the highway, so the east-west extent of the site along the highway corridor could be determined. The field methodology at Macallan reflects these differing requirements, with slightly different methodologies employed for each part of the site (Figure 2).

A one metre grid system was established over the site. All units were numbered using a military grid system with the southwest corner stake measured east and north of an arbitrary datum point. All human remains south of the highway (Area I) were recorded as accurately as possible in an attempt to determine their original provenience (Figure 3). To ensure that all human bone was recovered, all trowelled soil was screened through 6 mm mesh.

HWY 54
W.P. 77-79-05

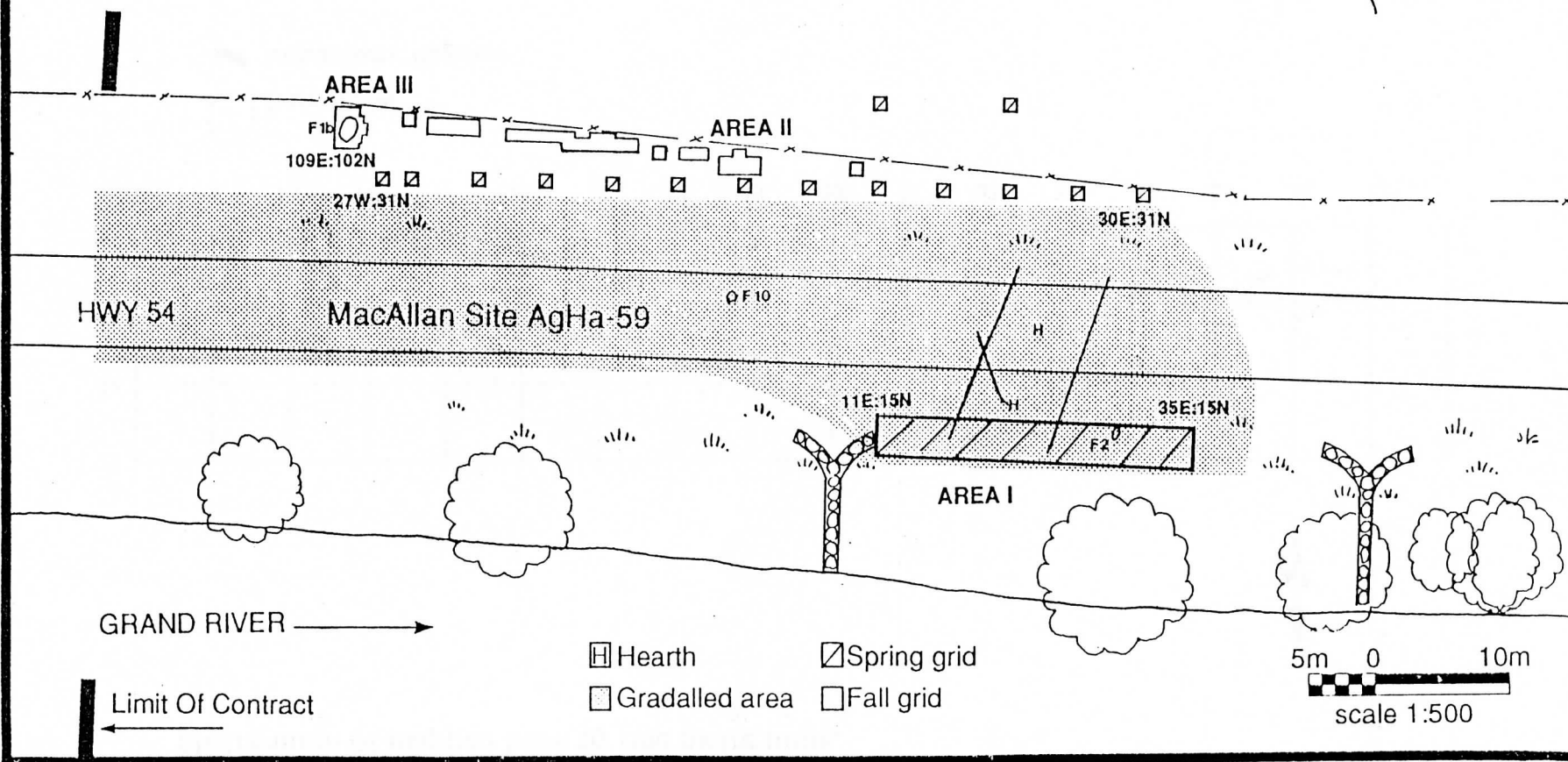


Figure 2: MacAllan Site Limits of Investigations.

Distribution of mapped bone by one metre units.

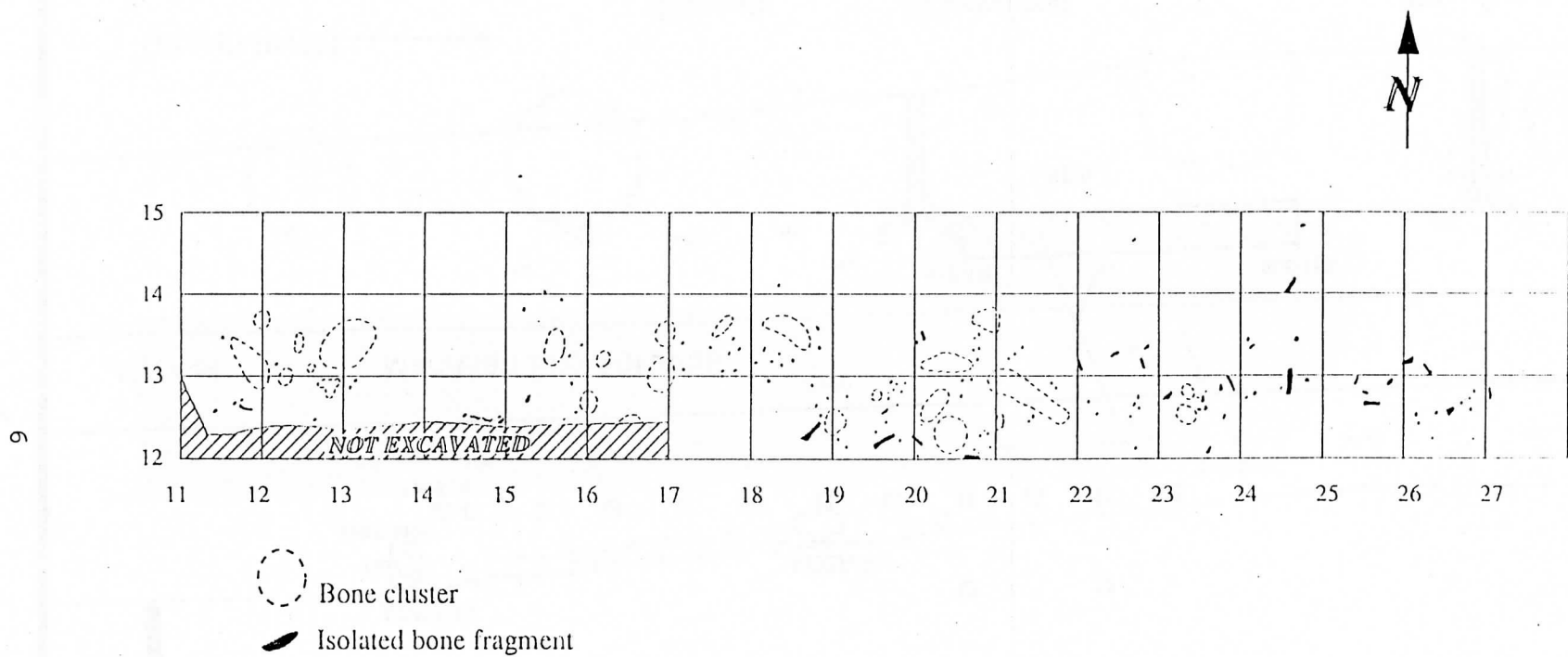


Figure 3: MacAllan Site, Distribution of Mapped Human Remains by 1 Metre Units.

The units south of the highway were excavated in a checkerboard pattern to record continuous north-south and east-west profiles (See for example Figure 4). Some units had up to four distinct levels. All bone and artifacts were bagged separately by level within each one metre square. After excavating over half of the units in this manner it was determined that all levels had been previously disturbed. Since the human bone was restricted to the uppermost layer (Level 1), we continued to trowel excavate it, but in an effort to save time and since the lower layers were already disturbed, they were excavated by shovel and screened through 6 mm mesh. It quickly became clear that the lower levels contained very few artifacts, therefore this methodology was abandoned and the lower levels were mechanically removed to expose subsoil features. In total, 59 one metre squares and six half units were excavated south of the highway.

Part of one hearth (Feature 1) was found peeking out from beneath the south edge of the highway. It was decided to strip the pavement from the highway and look for subsoil features. After the pavement and overburden were stripped, these areas were shovel-shined to locate settlement pattern data. As the work progressed, the grid was extended across the highway. The location of cultural features and post moulds were recorded by triangulation from five metre square grid stakes. All features were sectioned, photographed and profiled, and the depth, width and fill of all post moulds was recorded. One hundred percent of the soil from the features and from some posts was collected for water floatation.

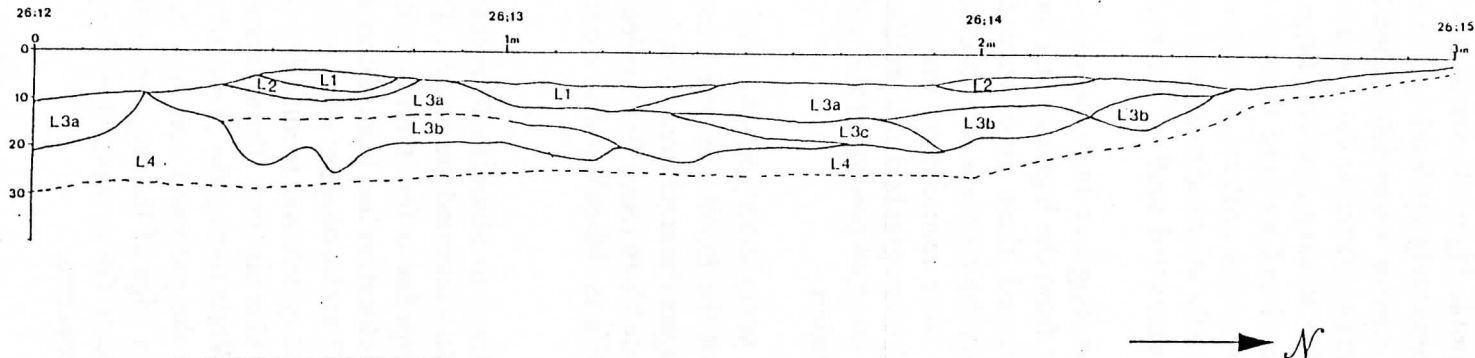
Excavation was restricted by the limits of the MTO ROW, therefore the overall size of the site could not be determined. The northern edge of the ROW was test excavated to determine the east-west limits of the occupation and to investigate the condition of the remaining archaeological deposits on MTO property. Test squares excavated here (Area II) revealed a typical ploughed soil profile and low frequencies of prehistoric artifacts. Macallan also extends north an unknown distance onto private property.

In October of 1992, MTO archaeologists returned to Macallan to prepare a small area for the reinterment of the human remains that had been excavated previously. They learned that Union Gas was planning to relocate their existing pipeline a few metres to the north to follow the recently moved fencerow. Because this utility relocation had been proposed prior to the highway reconstruction and was within the ROW, MTO archaeologists were requested to clear the area to be impacted by the pipeline. The original grid system was modified to accommodate the linear excavation of one metre squares for the Union Gas pipeline. These topsoil units were excavated by shovel and screened through 6 mm mesh. While testing the proposed pipeline trench, human skeletal elements were found part way along the proposed corridor. As well, a large subsoil feature (Feature 1B) was located at the western edge of the proposed trench (Figure 2). At this time it was decided that Union Gas would locate the new pipeline alongside the existing line, in the area already cleared of archaeological concerns.

Twenty-three one metre squares, 17 half units, and two quarter units were excavated for the Union Gas pipeline (Figure 2). In units where human bone was recovered, the subsoil was trowelled for evidence of burial features or in-situ human remains.

MacAllan AgHa-59

North-South Profile at the 26 Metre East Line.



KEY

L1 Red-brown redeposited subsoil (human bone layer)

L2 Dark brown fill

L3 Disturbed subsoil 3a) mottled grey sand
 3b) mottled yellow-brown sand
 3c) lenses of light yellow sand

L4 Red-brown subsoil

Figure 4: An Example of the Soil Profiles Recorded South of the Highway at MacAllan.

To increase the sample of diagnostic artifacts from Macallan and thus add to our understanding of the site, the MTO archaeology staff decided to excavate the large, refuse-filled feature discovered while testing the initially proposed pipeline corridor. Many diagnostic artifacts were recovered from the upper layers but the bottom of the pit was found to contain at least two human burials. After discussions with Six Nations and the Coroner, all of the material recovered from Feature 1B (artifacts, bone and fill) was immediately reinterred. On October 30, a re-burial ceremony was conducted by Huron Miller, a Seneca Elder from Six Nations. At this time all human remains from the spring excavation at Macallan were also reinterred in a separate pit.

Site Structure

Post Moulds:

A total of 129 posts were recorded at the Macallan Site (Figure 5). All were found after removing the existing roadway and disturbed soil south of the highway. The posts ranged in diameter from five to 10 cm with one exception, a post 22 cm in diameter. Post mould depth varied from 3 to 46 cm, depending upon their location beneath the highway. The deeper posts were located on the south side of the highway, indicating that more subsoil was cut from this area during the 1927 construction.

Overall, the post moulds represent a portion of one longhouse oriented in a north-northeast direction (Figures 5), with an extension toward the river. After stripping, the north side of the highway was examined for evidence of the northeast end of the house, but it was not found. The remaining portion of the house was 15 metres long by seven metres wide. Interior posts were found throughout the house, but concentrated around two hearths situated along the centreline (Figure 5). A few scattered posts were recorded west of the longhouse, near Feature 10.

Features:

A total of five features were excavated at Macallan. Two hearths (Features 1 and 5) were located along the centreline of the longhouse. Two small pits were located outside of the longhouse and a third external feature was the burial pit.

One hearth, Feature 1 (Figures 5, 6) was irregular in shape and 191 cm long, 126 cm wide and 21.5 cm deep. It was composed of a thin veneer of fire-reddened or oxidized soil beneath a layer of dark topsoil/charcoal mottled fill. A small pit (32 wide x 21 cm deep) was found beneath the hearth. A Late Archaic Smallpoint and charred corn were recovered from it; this pit was most likely associated with the Iroquoian hearth.

Feature 5 was also the remnant of a hearth. Most of this shallow feature was removed by excavator when the pavement was stripped. It was rectanguloid in outline and slightly smaller than Feature 1 (160 cm x 180 cm x 16 cm deep). There was some wood and root disturbance within this hearth.

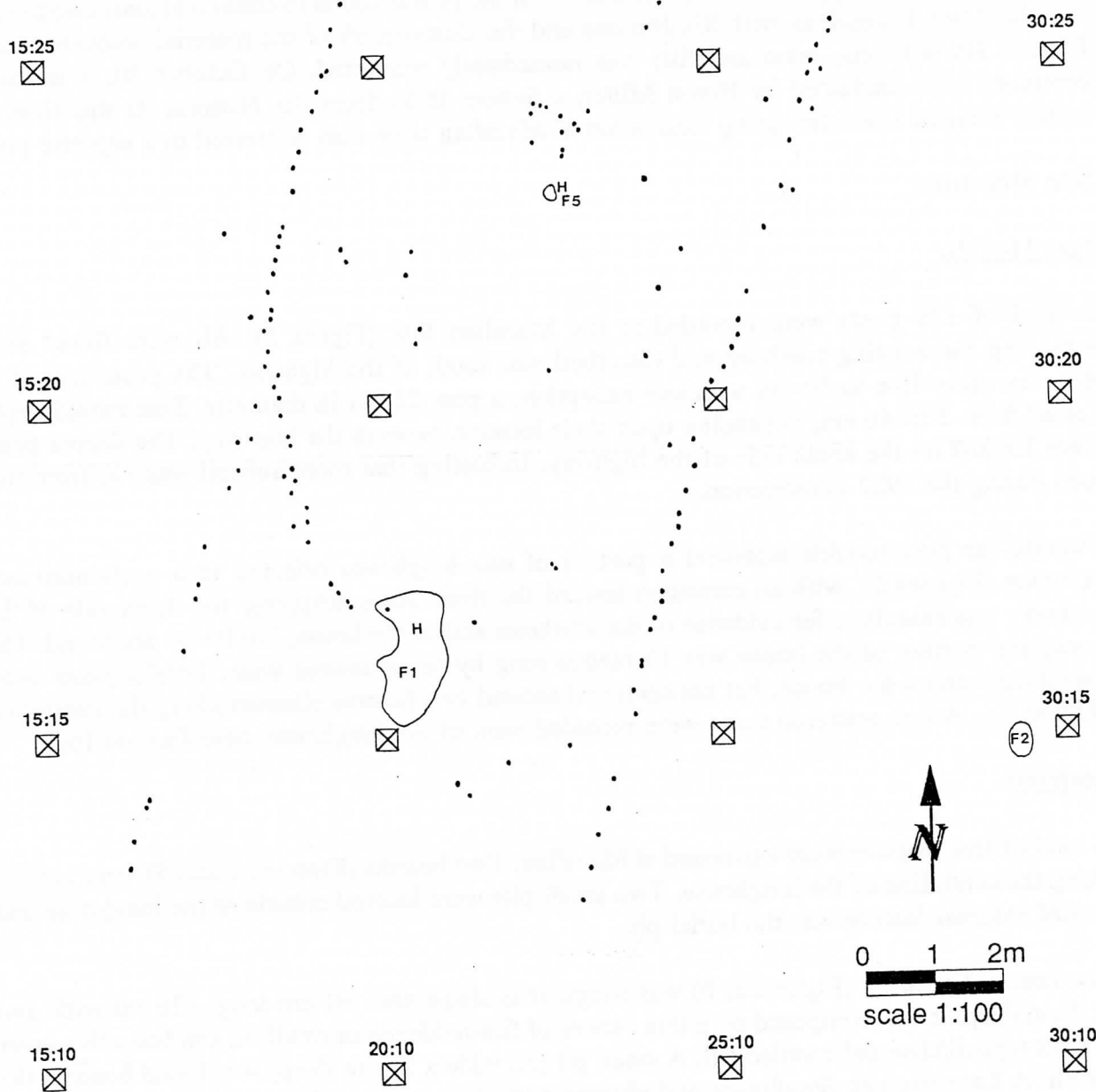


Figure 5: Settlement Patterns Documented for the MacAllan Site.

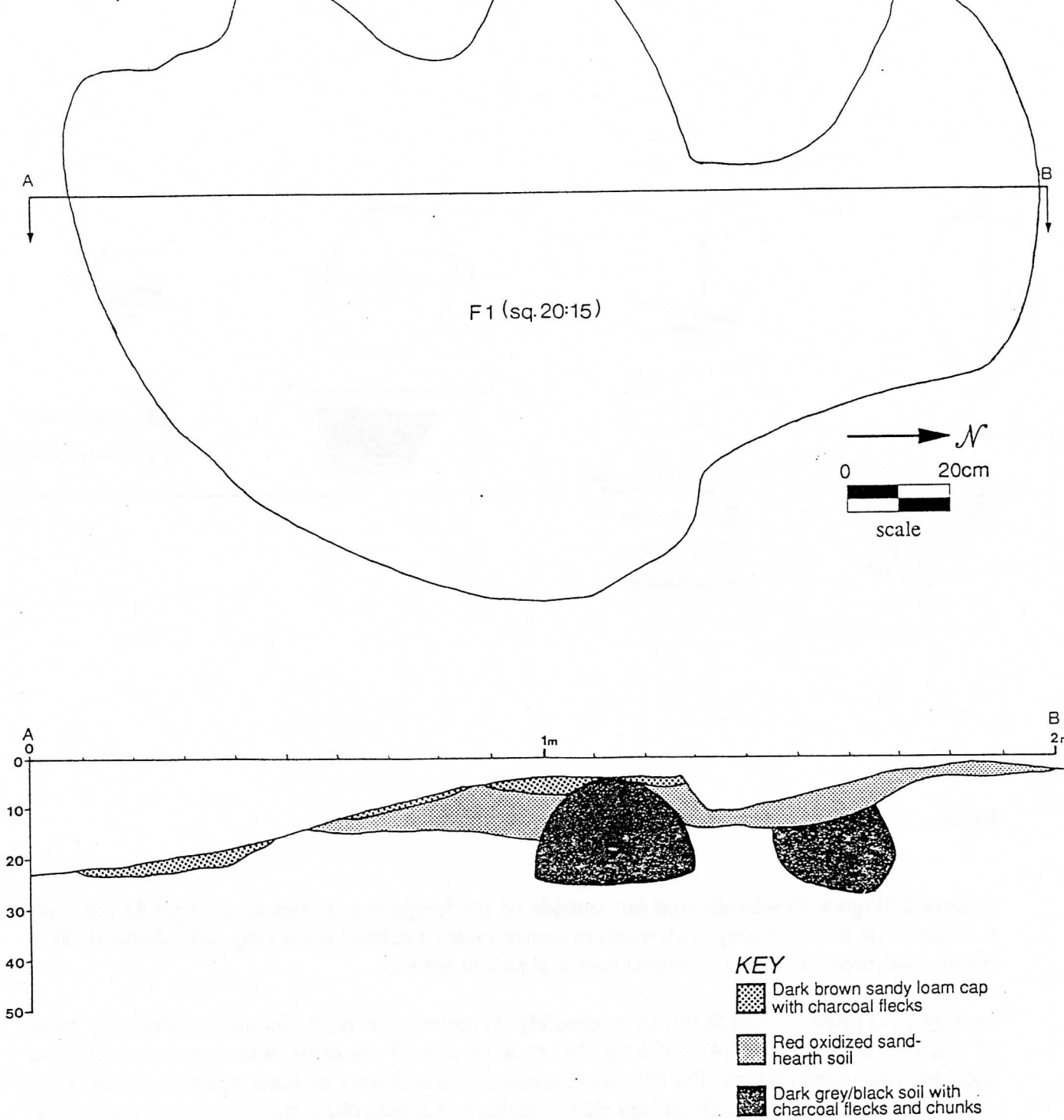


Figure 6: Feature 1 Plan and Profile.

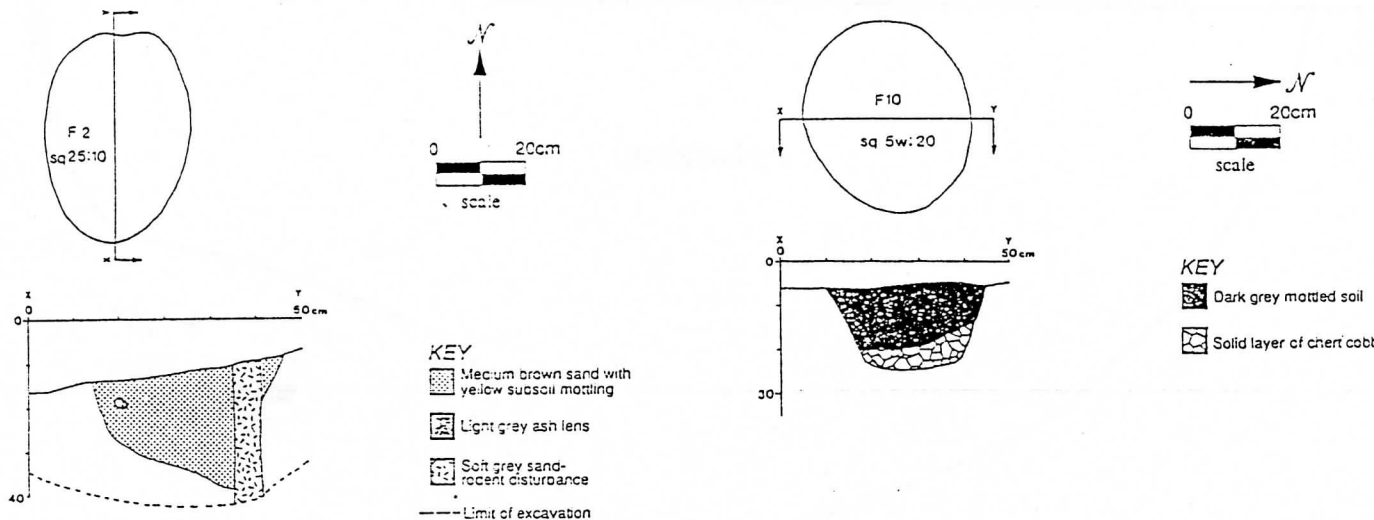


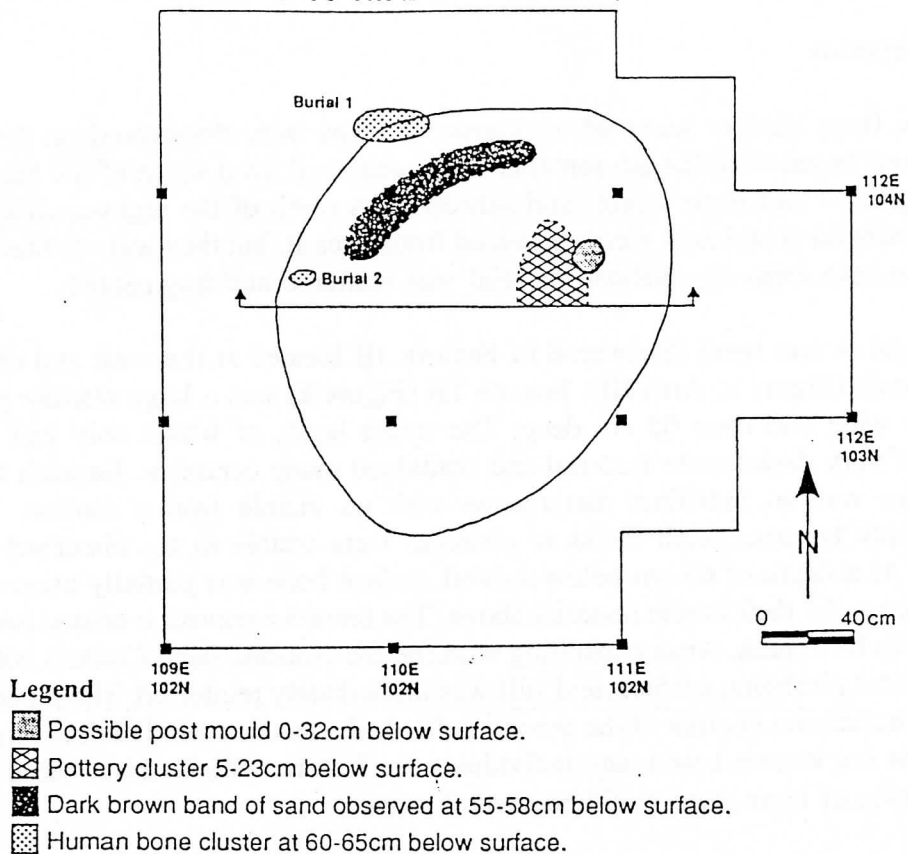
Figure 7: Feature 2 and 10 Plans and Profiles.

Feature 2 (Figure 7) was situated just outside of the longhouse. It was an oval pit 43 cm long x 32 cm wide x 24 cm deep with medium brown mottled subsoil containing only charcoal. This feature had been disturbed by recent root and rodent activity.

Feature 10 (Figure 7), was found approximately 20 metres west of the longhouse. Probably most of this small, shallow pit (43 cm long, 26 cm wide and 17 cm deep) was removed during the 1927 highway construction. The fill was composed of a dark grey mottled topsoil to a maximum depth of 13 cm. Thirty-two Onondaga chert cobbles and small cobble spalls were recovered from the bottom 4 cm (Figure 7).

The shape, size and content of Feature 1B, the burial pit, will be discussed under Human Remains.

Feature 1b Plan View 0-60 cm Below Surface.



Feature 1b E-W Profile of South Wall.

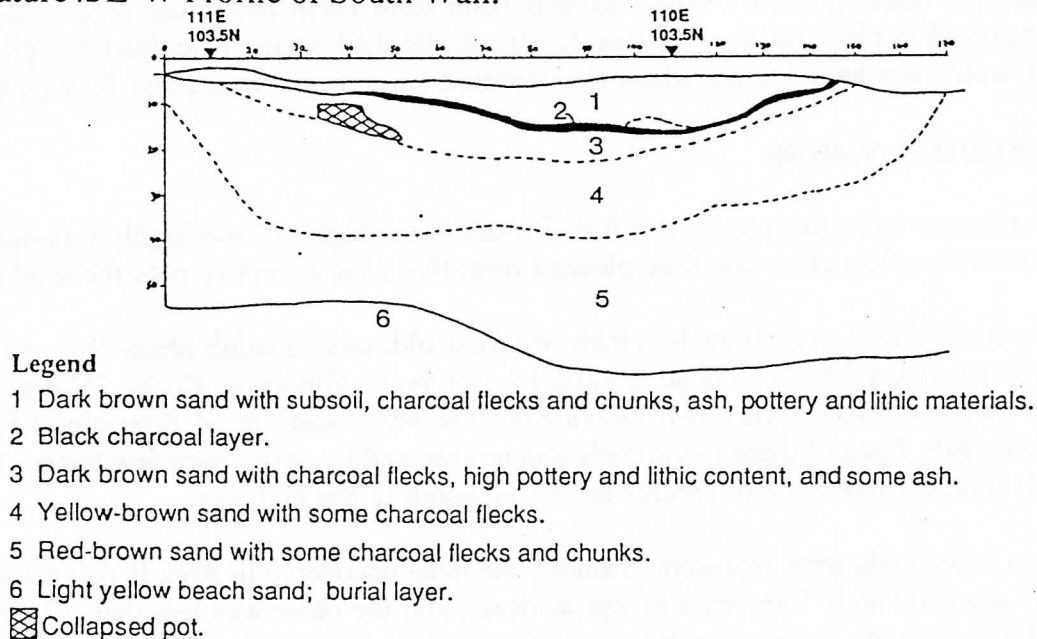


Figure 8: Feature 1B in Plan and Profile.

Human Remains

There were three distinct areas where human remains were discovered on the Macallan Site. Scattered and fragmented human remains were recovered from south of the highway (Figure 2, Area I; Figure 3) and from topsoil and subsoil units north of the highway (Figure 2, Area II). Two small tubular shell beads were recovered from Area II, but they were reinterred before being analysed. In both areas the skeletal material was scattered and fragmented.

Burials found *in situ* were discovered in Feature 1B located at the west end of the Union Gas pipeline trench (Figure 2, Area III). Feature 1B (Figure 8) was a large circular pit, 190 cm long by 170 cm wide and over 65 cm deep. The upper layer, of which only half was excavated, consisted of very dark humic material and contained many ceramics. Beneath the upper basin-shaped layer was an indistinct disturbance with no visible feature outline. The excavation continued only because small flecks of charcoal were visible in the disturbed-looking subsoil (Figure 8). At a depth of 63 cm below subsoil surface bone was partially uncovered. This bone was offset from the dark humic material above. The feature excavation ceased once the bone was determined to be human. After consulting with the Six Nations Band Council, all of the material from this burial pit (bone, artifacts and fill) was immediately reinterred. The pit contained at least one bundle burial; not enough of the second individual was uncovered to determine the interment method. It is not known how many individuals the feature contained but based on pit size and the distribution of bone there could be several more.

The disturbed subsoil in Feature 1B had the same red colour as the subsoil that surrounded the scattered bone in Area I. The scattered bone from north and south of the highway probably originated in pits similar to Feature 1B. Ironically, had we not examined this pit in some detail, we would not have known where the scattered bone from Areas I and II originated.

Osteological Analysis:

The human bone recovered from Area I south of the highway was highly fragmented (Figure 3). Not much information could be gleaned from this data, except to note the minimal presence of five individuals: one infant less than one year old; one subadult about five years old; and the majority of bone from a subadult aged 14 - 19 years (Glencross 1992a: 2). Age estimates were not possible for the other two individuals. The sex could not be determined for any of these individuals. Each of these individuals was represented by only a very few bones. There were also 480 unanalysable bone fragments recovered south of the highway.

Two individuals were represented among the bone uncovered in Area II (Glencross 1992b). One was approximately 23+ years of age at death, and the other was less than 17 years. These two individuals were represented by only a few scattered bones, therefore sex determinations were not possible (Glencross 1992b).

The burial pit, Feature 1B, contained at least two individuals. One was the partially uncovered

bundle burial of a 25+ year old adult male. Only a rib head of the second individual was exposed. On the basis of on this one element, neither the age nor the sex could be determined (Glencross 1992b).

To summarize, a minimum of nine individuals were represented by human bone at Macallan. No pathologies or abnormalities were noted in the bone sample (Glencross 1992a, 1992b).

Isotopic Analysis:

Permission was obtained from Six Nations to radiocarbon date a human bone fragment. A proximal fragment (200 gms) of a left femur (subadult 14 - 19 years) was submitted to the Radiocarbon Lab, Department of Geological Sciences, Brock University for radiocarbon dating and isotopic analysis (sample No. BGS 1556). This femur fragment was the only element that met the minimal sample weight requirement from the collection. A date of 800 ± 70 years B.P. was returned from the sample, which was corrected for isotopic fractionation to 990 ± 70 years. Using Struever and Pearson (1986), this date was calibrated to A.D. 1000 ± 70 years or A.D. 930 to A.D. 1070. The C13 determination is -13.3. According to C13 values for other Ontario Iroquoian human remains, the Macallan individual must have consumed maize in his or her diet comparable to seventeenth century sites, a value which seems high for a tenth or eleventh century site (Schwarz et al. 1985).

Artifact Analysis

A total of 2440 artifacts were recovered from the Macallan site. Frequencies by type are provided in Table 1. This table does not include the artifacts from Feature 1B. In this section, most artifact types will be discussed under the appropriate category. Since the site was disturbed and multi-component, the cultural affiliation of most artifacts could not be determined. As well, many are only very small fragments. Most artifacts will simply be listed by class and only a few will be discussed in detail. The specific provenience of most artifacts will not be discussed. A more detailed discussion of artifacts is provided in the original report (Woodley 1993).

Ceramics:

Of the 463 ceramic sherds recovered from Macallan, there is only one decorated rim fragment, one decorated body sherd, 460 plain body sherds and one pipe fragment.

The decorated rim sherd fragment was recovered from south of the highway. It is small (2.2 g) and thin (8.0+ mm) with stamped linear impressions and a flat undecorated lip. This rim fragment is too small to type. The decorated body sherd is also small (2.7 g) with a stamped linear impression; this sherd was recovered from the topsoil north of the highway.

Of the remaining 460 plain body sherds most are very small and most are exfoliated. Most were recovered in the disturbed area south of the highway. The fragmentary and exfoliated nature of the sherds is most likely due to their being run over by heavy construction equipment. Of the 42

TABLE 1
Artifact Frequency By Type

Category	Type	Frequency	Weight (g)
CERAMICS			
Vessels	Rims	1	2.2
	Decorated Body	1	2.7
	Body Sherds	460	470.3
Pipe	Rim	1	2.9
LITHICS			
Cobbles		32	3509.5
	Spalls	72	157.6
Cores		4	40.3
Debitage		2479	1372.0
Unifaces	Flake Tools	17	80.1
	Scraper	1	0.7
Bifaces	Rough	7	28.8
	Blank	1	7.2
	Finished	3	11.1
	Unknown	5	6.4
	Knife	1	16.1
	Projectile Points	10	22.4
ROUGH STONE	Hammerstone	3	591.2
FCR		4	222.3

complete sherds, the thickness ranges from 4.3 to 9.7 mm with a mean thickness of 6.0 mm. Sherds with evidence of an exterior or interior decorative/constructive technique are all smoothed-over cordmarked. All sherds appear to have been constructed by the paddle and anvil technique. These sherds indicate a Late Woodland occupation.

The ceramics recovered from Feature 1B, the burial pit (Figure 9) were re-buried the day after they were found, before they could be properly analysed. A quick examination of the rim sherds from this feature indicated that they were Ontario Oblique type rims (J. Wright 1966) with exterior bosses, dating to the Early Ontario Iroquoian period (Williamson 1990). Photographs of these rims show no ribbed-paddled surfaces, suggesting a pre-Uren (ca. A.D. 1300) age.

A single pipe bowl fragment was recovered. It is 8.9 mm thick and 44.4 mm wide at the lip and weighs only 2.9 grams. It is plain and was formed using a very fine grit temper. It most likely an Iroquoian pipe bowl fragment.

Lithics:

Material - Onondaga chert is the dominant raw material at Macallan, which would have been obtained from the Onondaga Escarpment or from secondary deposits along the north shore of

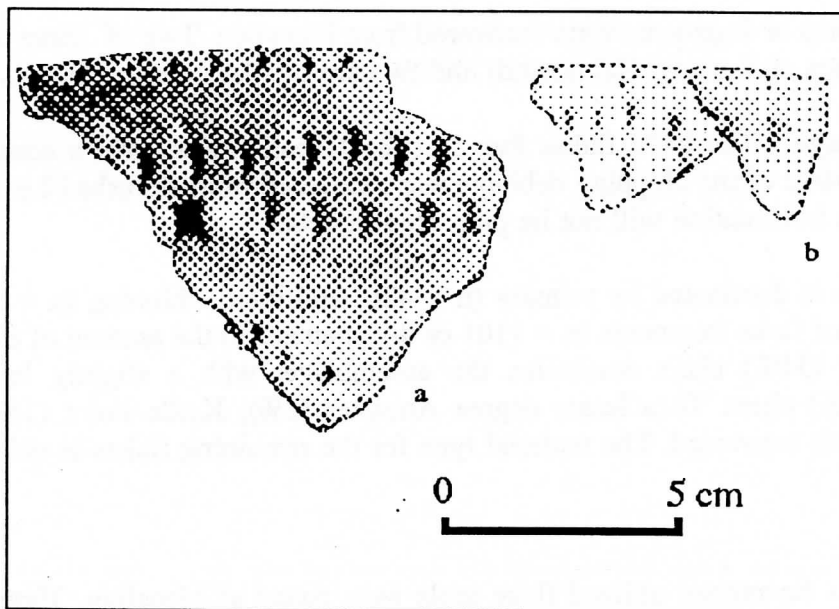


Figure 9: Re-buried Ceramics From Feature 1B.

Lake Erie (Eley and von Bitter 1989). Haldimand chert from Haldimand County was also used. Other material includes small quantities of Ancaster chert from the Niagara Escarpment in the Hamilton-Dundas area, Colborne chert from Haldimand County and Kettle Point chert from the southeast shore of Lake Erie (Eley and von Bitter 1989).

Chert Blocks and Cobbles - Thirty-two Onondaga chert cobbles and 72 cobble spalls were recovered from Feature 10 (Figures 8). This cobble cache is fairly unique so these are described individually (Table 2). There is considerable variation in size and weight between cobbles and some slight colour variation. All have at least one flake removed from the exterior surface, presumably as a test flake to determine the quality of the chert. The combined weight of the 32 cobbles is 3341.9 grams, which is almost three times the combined weight of all debitage recovered from Macallan. The colour of the fill overlying the cobbles suggests that these are associated with the Late Woodland component.

All of the cobbles are water-rolled. Five cobbles have limestone matrix adhering to one or more end but even these are water-rolled. This suggests that the cobbles were collected from a creek or stream bed or the Lake Erie shore.

The weights and measurements provided in Table 2 exclude the 72 shatter spalls and flakes recovered from Feature 10. Most of these were very small and some may have been caused by

post-excavation trauma (Carl dropped the bag containing the cobbles). The combined weight of the cobble spalls is 157.6 grams.

Cores - Four cores or fragments were recovered from Macallan. Two of these are random cores (one of Onondaga and one of Haldimand) and two are bipolar cores of Onondaga chert.

Chipping Debitage - The 2478 flakes found at the Macallan Site have a combined weight of 1372.0 grams. Most of the chipping debitage was recovered from disturbed Level 3 south of the highway so this information will not be presented in detail.

The assemblage is dominated by primary ($n = 426$) and biface thinning ($n = 510$) flakes. The high frequency of flake fragments ($n = 1101$ or 44%) attests to the amount of disturbance at the site. Onondaga (54%) chert dominates the assemblage, with a slightly lower quantity of Haldimand (41%) chert. To a lesser degree Ancaster (2%), Kettle Point (1%) and Colborne (0.2%) chert were recovered. The material type for the remaining flakes is unknown.

Unifaces:

Utilized Flakes - Seventeen utilized flake tools were found at Macallan. Three utilized flakes were made from biface thinning flakes, thirteen from primary flakes and the remaining one is on a flake fragment. Of these, 14 were made of Onondaga chert and three of Haldimand. Only three were identified as a specific type. Two are scraper flake tools and one is a spokeshave-like implement. The remainder are simply classed as general flake tools.

Scraper - A single scraper fragment was recovered from Level 3 south of the highway. It is made of Onondaga chert and is 12.2+ mm long x 9.8+ mm wide x and 4.5+ mm thick and weighs 0.7 grams. The scraper has a bit angle of 85 degrees and a bit height of 3.4 mm.

Bifaces:

A total of sixteen biface fragments were recovered (e.g., Figure 10.c, f). Of these, seven are typed as rough bifaces, one as a biface blank, two as finished bifaces, and five are unknown.

Knife - A single bifacial knife (Figure 10.a) was recovered from the disturbed area south of the highway. It is of Onondaga chert and 57.7+ mm long, 33.7 mm wide, 9.0 mm thick and weighs 16.1 grams. The tip is broken. Both lateral edges are finely flaked.

Projectile Points - Ten projectile points or fragments were recovered from Macallan. Of these, two are non-diagnostic bases and four are small tip fragments. Only four are diagnostic.

Three points do not temporally fit with the Late Woodland occupation. One is an Innes or Ace-Of-Spades (Lennox 1986) type point (Figure 10.b), 30.6 mm long, 24.4 mm wide and 6.4 mm thick, recovered in a pit beneath Feature 1. This type dates to around 900 B.C. Another is a Crawford Knoll point, 38.6+ mm long, 23.4 mm wide and 7.1 mm thick, recovered north of the

highway; it can date to around 1500 B.C. (I. Kenyon 1989; Figure 10.d). A Saugeen point base (Figure 10.g), 20.2+ mm long, 19.5 mm wide and 10.5 mm thick, was recovered from south of the highway; it dates to the Middle Woodland period (Spence, Pihl and Murphy 1990).

The only point that even remotely fits the Iroquoian occupation is a Glen Meyer-like triangular point or preform from Feature 3 (Figure 10.e). It is finely flaked on both the dorsal and ventral surfaces and both lateral edges. The distal end was used as a scraper, blurring its typological distinctiveness.

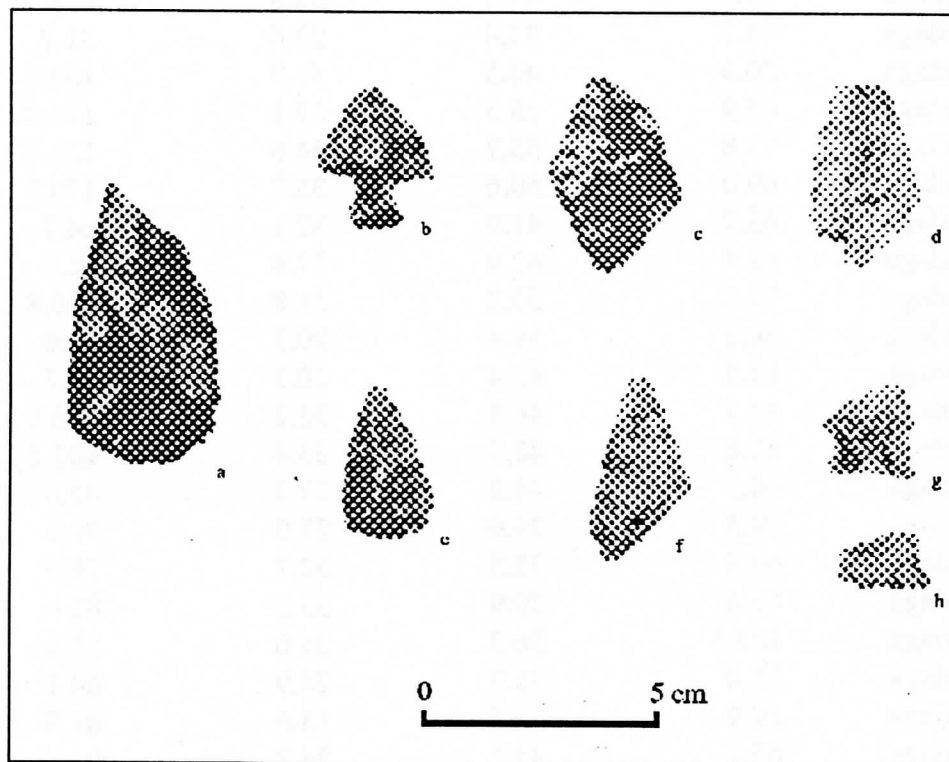


Figure 10: Bifacial Tools recovered from the MacAllan Site.

TABLE 2
Chert Cobble Size From Feature 10

	Material	Length (mm)	Width (mm)	Height (mm)	Weight (g)
1	Onondaga	56.1	48.2	44.8	158.1
2	Onondaga	76.3	65.6	37.8	272.2
3	Onondaga	89.2	47.3	33.3	161.9
4	Onondaga	69.1	43.5	38.9	157.4
5	Onondaga	61.0	43.0	35.6	110.5
6	Onondaga	73.6	60.3	31.5	120.2
7	Onondaga	65.6	27.4	31.9	96.5
8	Onondaga	62.4	47.1	30.8	123.7
9	Onondaga	43.7	37.4	22.6	31.7
10	Onondaga	50.9	44.5	51.7	159.2
11	Onondaga	65.9	58.5	37.1	176.0
12	Onondaga	73.8	55.7	34.6	138.8
13	Onondaga	69.0	50.6	35.2	170.7
14	Onondaga	63.7	41.9	32.1	64.7
15	Onondaga	62.7	42.9	27.4	66.0
16	Onondaga	74.0	55.2	31.8	140.8
17	Onondaga	50.1	39.4	20.3	51.0
18	Onondaga	63.5	42.4	20.3	54.7
19	Onondaga	83.7	46.3	35.2	163.6
20	Onondaga	68.6	45.7	23.4	103.4
21	Onondaga	64.2	44.2	27.3	82.0
22	Onondaga	79.5	29.0	27.0	70.1
23	Onondaga	69.4	32.3	32.7	76.3
24	Onondaga	62.4	29.9	33.5	82.4
25	Onondaga	108.5	56.3	31.6	95.4
26	Onondaga	56.4	38.7	24.9	64.1
27	Onondaga	59.9	24.5	13.6	41.8
28	Onondaga	65.2	45.2	24.7	94.4
29	Onondaga	78.9	44.7	32.4	120.6
30	Onondaga	46.8	22.1	21.8	21.7
31	Onondaga	43.7	49.2	9.2	19.2
32	Onondaga	43.2	40.7	31.7	62.8
	X =	65.65	43.74	30.21	104.75
	sd =	13.91	10.29	8.37	55.31
	range =	43.2 -108.5	22.1 -65.6	9.2 - 51.7	19.2 - 272.2

Archaeobotany:

Only a very small amount of archaeobotanical material was recovered from the cultural features: charred seeds of 38 flint corn (*Zea mays*), four tobacco (*Nicotiana rustica*), and 26 bramble berries (*Rubus* sp.). Some charred cultigens from Feature 1 confirm that this hearth dates to the Late Woodland period.

All fragments of charred wood large enough to identify were examined. The identified wood is representative of an oak-hickory forest with important associates such as sugar maple, ironwood and beech. This combination of tree species is generally found where soils are light and well drained. A nearby lowland forest is suggested by the presence of white and slippery elm. A small amount of pine in the sample also suggests some forest regeneration within the wood gathering area.

Zooarchaeology:

A total of 90.2 grams of bone was recovered. The identified species are deer, grey squirrel, rabbit, dog, bullfrog, catfish, crawfish and clams (MacLean 1992). Not much can be interpreted from such a small assemblage. Seasonality cannot be inferred; most of these identified species are available in the area throughout the year (MacLean 1992).

Discussion

The Macallan site (AgHa-59) is located in Southern Ontario in what would have been a mixed environment within the Carolinian Biotic Province. Site size could not be determined, but artifacts were recovered from a distance of over 60 metres along the north side of the highway.

Scattered and fragmented human remains were recovered from three areas at the Macallan site; one south of the highway and two north of the highway (Areas I-III on Figure 2). A minimum of seven individuals were represented, ranging from one to 25+ years at death. It is assumed that the redeposited human bone was the result of construction crews hitting *in situ* burials and scattering the bone along the side of the road.

The longhouse midsection clearly indicates a Late Woodland Iroquoian occupation, although without the length or the end shape it is not indicative of a specific time period (Dodd 1984). This longhouse lacks the usual mass of interior posts and features generally found on Glen Meyer sites (Williamson 1985, 1990; Timmins 1992). The recovery of two hearths within the longhouse indicates that the absence of internal structure was not solely the result of pavement stripping.

The majority of artifacts recovered from Macallan are either lithic debitage or small body sherds. Diagnostic projectile points indicate a Late Archaic occupation, a possible Middle Woodland occupation, as well as a Late Woodland occupation. With the density of prehistoric occupations along the Grand River (e.g., Warrick 1991), this overlapping of cultural components is to be expected. The majority of ceramics are not temporally diagnostic, but the ceramics from the

burial feature had linear stamped bands similar to those found on Glen Meyer period sites (Williamson 1990:310). Similar ceramics were recovered from the Van Besien site (Noble 1972), located in Oxford County, and the Cooper site (Warrick 1983), located near Brantford.

A radiocarbon date on a human femur fragment found alongside the highway returned a date of 800 ± 70 years B.P., corrected for isotopic fractionation to 990 ± 70 years. This falls within the known age range of the early Glen Meyer period. On the basis of on this, the skeletal material from alongside Highway 54 most likely originated from the Iroquoian occupation at the Macallan site. This concurs with the available settlement and artifact data and therefore is accepted as representative of the Late Woodland occupation at Macallan.

Not much is known about Early Iroquoian Glen Meyer burial patterns. A variety of interment practices are evident (Williamson 1990; Spence n.d.; Woodley et al 1991, 1992, n.d.). Single, within-village interments were found at the Glen Meyer period Reid site¹ located near Long Point (M. Wright 1978), and the Tara site (G. Warrick pers. comm.) in Burlington. Also found on Tara were multiple, within-village interments (Warrick pers. comm.). Multiple interments have been found outside of villages at the Winona Rockshelter (Spence and Fox 1992) in the Niagara Escarpment near Winona, the Rogers Ossuary, located near the Porteous site in Brantford (Mullen and Hoppa 1992) and from the Zamboni cemetery northwest of Brantford (Woodley et al 1991, 1992, n.d.). These differing interment practices may well indicate regional as well as temporal differences (Williamson 1990).

Of the sites with multiple burials, Feature 1B at Macallan is most similar to the burial pits at Zamboni. The intact burial feature at Macallan (Feature 1B) and the quantity of bone scattered alongside the highway suggest that at least two burial pits at Macallan were disturbed during the 1927 construction. On the basis of quantity and location of the pits at Zamboni, it is quite likely that more burial features are located in the vicinity of Feature 1B at Macallan. The Rogers Ossuary (Mullen and Hoppa 1992), the Zamboni cemetery (Woodley et al 1991) and Macallan are all located alongside the Grand River, suggesting a recurring Glen Meyer interment pattern including formal cemeteries and multiple burial pits.

Carl Murphy (pers. comm.) has suggested that the Macallan pattern of a single house associated with burial pits is reminiscent of Western Basin burial sites (Murphy and Ferris 1990), are characterized by longhouses with few domestic features. If so, then Feature 10 containing the 32 chert cobbles and located at about the midpoint between Feature 1B and the longhouse, may tentatively be interpreted as a burial offering. Alternatively, the scattered post moulds near this feature could be associated with the remains of another longhouse.

Multiple interments are reminiscent of Pickering culture burials in southeastern Ontario. Multiple interment pits were recorded at the Miller Site near Pickering (W. Kenyon 1968) and at the

1. J.V. Wright (1992 and pers. comm.) argues that the Reid site burials are Middle Iroquoian in age.

Richardson (Pearce 1978) and Serpent Pits (Johnston 1968, 1979) sites near Rice Lake. The use of multiple interments continues into the later Middle Ontario Iroquoian period (e.g., M. Wright 1986; Dodd et al 1990).

In summary, Macallan is an early Glen Meyer site dating to ca. A.D. 1000, and has offered us an opportunity to add a little to our understanding of Glen Meyer and early Late Woodland burial practices.

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References

Chapman, L.J. and D.F. Putnam

1984 **The Physiography of Southern Ontario, Third Edition.** Ministry of Natural Resources, Ontario Geological Survey, Special Volume 2.

Department of Public Highways

1927 **Annual Report of the Department of Public Highways, Ontario, for 1926 - 1927.** Toronto.

Dodd, C.F.

1984 **Ontario Iroquois Tradition Longhouses.** National Museum of Man, Archaeological Survey of Canada, Mercury Series No. 124. pp. 181-437.

Dodd, C.F., D.R. Poulton, P.A. Lennox, D.G. Smith, and G.A. Warrick

1990 The Middle Iroquoian Stage. In **The Archaeology of Southern Ontario to A.D. 1650.** (edited by C.J.Ellis and N.Ferris), pp. 321-360. Occasional Publications of the London Chapter, OAS, Number 5.

Eley, B.E. and P.H. von Bitter

1989 **Cherts of Southern Ontario.** Royal Ontario Museum Publications in Archaeology. Toronto.

Glencross, B.

1992a Human Skeletal Remains At The Macallan Site (AgHa-59). Unpublished report submitted to MTO, Central Region.

1992b Addendum to the Report: Human Skeletal Remains At The Macallan Site (AgHa-59). Unpublished report submitted to MTO, Central Region.

Johnston, R.B.

- 1968 **The Archaeology of the Serpent Mounds Site.** Royal Ontario Museum Art and Archaeology Occasional Papers No. 10.
- 1979 Notes On Ossuary Burial Among the Ontario Iroquois. **Canadian Journal of Archaeology** 3: 91-104.

Kenyon, I.T.

- 1989 Terminal Archaic Projectile Points in Southwestern Ontario: An Exploratory Study. **KEWA** 89(1): 2-21.

Kenyon, W.

- 1968 **The Miller Site.** Royal Ontario Museum, Art and Archaeology Division, Occasional Paper 14.

Lennox, P.

- 1986 The Innes Site: A Plow Disturbed Archaic Component Near Brantford, Ontario. **Midcontinental Journal of Archaeology**. 11: 221-268.

MacLean, J.D.

- 1992 The Macallan Site (AgHa-59), Highway 54 (East of Brant County Road 22) Faunal Report. Unpublished report on file at MTO, Central Region.

Mullen, G.J. and R.D. Hoppa

- 1992 Rogers Ossuary (AgHb-131): An Early Ontario Iroquois Burial Feature from Brantford Township. **Canadian Journal of Archaeology** 16: 32-47.

Murphy C. and N. Ferris

- 1990 **The Late Woodland Western Basin Tradition In Southwestern Ontario. In The Archaeology of Southern Ontario to A.D. 1650.** (edited by C.J.Ellis and N.Ferris), pp. 189-278. Occasional Publications of the London Chapter, OAS, Number 5.

Noble, W.C.

- 1972 Van Besien (AfHd-2): A Study in Glen Meyer Development. **Ontario Archaeology** 24: 3-95.

Pearce, R.J.

- 1978 Archaeological Investigations of the Pickering Phase in the Rice Lake Area. **Ontario Archaeology** 29: 17-24.

Schwarz, H.P., J. Melbye, M.A. Katzenberg, and M. Knyf

- 1985 Stable Isotopes in Human Skeletons of Southern Ontario: Reconstructing Paleodiet. **Journal of Archaeological Sciences** 12: 187-206.

- Spence, M.W.
n.d. Early Iroquoian Burial Patterns. Unpublished manuscript in possession of the author.
- Spence, M.W. and W.A. Fox
1992 The Winona Rockshelter Burial. **Ontario Archaeology** 53: 27-44.
- Spence, M.W., R. Pihl and C. Murphy
1990 Cultural Complexes of the Middle Woodland Period. In **The Archaeology of Southern Ontario to 1650 A.D.** (edited by C.J.Ellis and N.Ferris), pp. 125-169. Occasional Publications of the London Chapter, OAS, Number 5.
- Struever, M. and G. Pearson
1986 High-Precision Calibration of the Radiocarbon Date, A.D.1950-500 B.C. **Radiocarbon** 28: 805-838.
- Timmins, P. A.
1992 An Interpretive Framework for the Early Iroquoian Village. Unpublished Ph.D. thesis, Department of Anthropology, McGill University.
- Warrick, G.
1983 A Report on the Archaeology of the Cooper Sites (AlGm -18 and AlGm - 19). Report on file, Ontario Ministry of Culture, Tourism and Recreation, Toronto.
1991 An Archaeological Assessment of Highway 54 (East of Brant Road 22), W.P. 77-79-05. Unpublished report on file, Ministry of Transportation, Central Region.
- Williamson, R.F.
1985 Glen Meyer: A People In Transition. Unpublished Ph.D. thesis, McGill University.
1990 The Early Iroquoian Period of Southern Ontario. In **The Archaeology of Southern Ontario to 1650 A.D.** (edited by C.J.Ellis and N.Ferris), pp. 291-320. Occasional Publications of the London Chapter, OAS, Number 5.
- Woodley, P. J.
1993 The Macallan Site (AgHa-59): A Glen Meyer Cabin and Mortuary Site. Unpublished report on file, Ministry of Transportation, Central Region.
- Woodley, P.J., Wm. Fitzgerald, and R. Southern
1991 The Archaeological Assessment and Partial Mitigation of the Zamboni Cemetery (AgHb-144) Brantford. Unpublished manuscript submitted to the Ontario Heritage Foundation.
1992 The Zamboni Site. Paper presented at the Canadian Archaeological Association Annual meetings, London, Ontario.
- Woodley, P.J., R.A. Southern and W.R. Fitzgerald
n.d. The Zamboni Cemetery: A Glen Meyer Period Burial Ground. Unpublished manuscript in possession of the author.

Wright, J.V.

- 1966 **The Ontario Iroquois Tradition.** Ottawa: National Museum of Canada, Bulletin 210. Facsimile Edition reprinted in 1973.
- 1992 **The Conquest Theory of the Ontario Iroquois Tradition: a Reassessment.** **Ontario Archaeology** 54: 3-16.

Wright, M.J.

- 1978 Excavation at the Glen Meyer Reid Site, Long Point, Lake Erie. **Ontario Archaeology** 29: 25-32.
- 1986 **The Uren Site AfHd-3: An Analysis and Reappraisal of the Uren Substage Type Site.** Monographs in Ontario Archaeology 2.